CORE
Metadata, citation and similar papers at core.ac.uk
Provided by Elsevier - Publisher Connector

Available online at www.sciencedirect.com
ScienceDirect
Procedia Social and Behavioral Sciences 15 (2011) 3342–3348
Procedia Social and Behavioral Sciences

WCES-2011

ADHD symptoms in national samples of Turkish adolescents: self, parent, and teacher reports

Sema Kaner *

[a]*Ankara University, Faculty of Educational Sciences, Department of Special Education, Ankara, Turkey*

Abstract

This study examined the correspondence among child, parent and teacher reports, in rating ADHD symptoms of 937 community children aged 15-18. Correlations between raters, especially parents-teachers and teachers-adolescents, were in the low range. In contrast, parent-adolescent concordance was greater than the other two informant correspondence. Informant correspondence was higher for cognitive/inattentive problems than hyperactivity problems.

Keywords: ADHD, adolescent, parent and teacher, Conners' Rating Scales-Revised-Long.

1. Introduction

ADHD is evaluated according to the DSM-IV in clinical settings. Besides DSM-IV, many rating scales have been using to determine the ADHD symptoms and/or treatment effects. Different informants such as parent, teacher, and child respond these scales' items. Each informant offering his or her own unique perspective on the child behavior (Smith, 2007) and has own strenghts and weakness (Verhultz, Dekker & van der Ende, 1997). While parents are familiar with children's behaviors across situations and time, teachers have the opportunity to observe and compare children' behavior with that of his/him classmates in a structured school setting. Neither parents nor teaches are able to observe all behaviors of children. Therefore, children, especially as they grow older, are reliable and valuable informants about their own behaviors.

Children behaviors may be situation spesific and certain behaviors occuring in only certain settings (i.e., home, and/or school); also, informants differ in their opportunities for observing children, their effects on the children, and their standards of judgment (Achenbach, McConaughy & Howell, 1987; Renk, 2005; Verhultz et all, 1997). Using different information sources such as parent, teacher, and children and adolescent themselves is important to see the whole picture about the children' and adolescent' situations (Kaner, 2009).

Informant discrepancies about problem behaviours of children and adolescents have been studied extensively. Especially, parent-teacher ratings agreement was investigated (i.e., Antrop, Roeyers, Ooesterlaan, Van Oast, 2002; Coutinho, Mattos, Schmiz, Fortes, & Borges, 2008; Gomez, 2007; Kolko, & Kazdin, 1993; Loeber, Green & Lahey, 1990; Mitsis, Mckay, Schulz, Newcorn & Halperin 2000; Re & Cornoldini, 2009; Serra-Pinheiro, Mattos & Regalla, 2008; Van der Oord, Prins, Oosterlaan & Emmelkamp, 2006; Verhultz et all., 1997). However, few studies have interested in parent-teacher-adolescent agreement on attention problems (Becker, Hagenberg, Roessner, Woerner & Rothenberger, 2004; Cohen, Kelly & Atkinson, 2004; Kolko, & Kazdin, 1993; McConaughy, 1993,

* Sema Kaner.
E-mail address: semakaner@gmail.com; kaner@education.ankara.edu.tr

1877–0428 © 2011 Published by Elsevier Ltd. Open access under CC BY-NC-ND license.
doi:10.1016/j.sbspro.2011.04.297

Smith, Pelham, Gnagy, Molina. & Evans, 2000). Using adolescent' rating with parent and teacher ratings, make more comprehensive determining ADHD symptoms.

Conners' rating scales are most commonly used for this purpose (i.e., Bussing et all, 2008; Conners, 1997; Hale, How, Dewitt & Coury, 2001; Waschbusch & Willoughby, 2008). These asssessment instruments have developed empirically based by Conners (1997) and sets obtain standardized ratings of children's behavioral and emotional problems by multiple informants' perspectives. Because the main symptoms of ADHD are inattention, hyperactivity and impulsivity, we used only Cognitive Problems/Inattentive, Hyperactivity, ADHD Index, DSM-IV Symptom Scales (DSM-IV-Inattentive, DSM-IV-Hyperactive-Impulsive subscales of Conners' rating scales.

In this study, we examined how the information from parents, teachers, and adolescents about ADHD symptoms in adolescents match with each other with Conners' rating scales. This is the first study investigating three different information sources (parent, teacher and adolescent) evaluations' in terms of ADHD symptoms in Turkey.

2. Methodology

2.1 Sample.

In the present study data were collected from non-clinic adolescents and from their parents and their teachers. The sample consist of 937 adolescents aged 12-18 (mean age is 16.24, SD=0.96), including 486 girls (51.9%) with a mean age of 16.15 years (SD=0.94) and 451 boys with a mean age of 16.34 years (SD=0.97).

2.1.1. Measures

2.1.1.1. Conners' Parent Rating Scale-Revised/Long-CPRS-R/L (Connners, 1997). CPRS-R/L contains 80 items. There are 14 subscales: Oppositional, Cognitive Problems/Inattentive, Hyperactivity, Anxious/Shy, Perfectionism, Social Problems, Psychosomatic, Conners Global Indeks (Restless-Impulsive, Emotional Lability), DSM-IV Symptom Scales (DSM-IV-Inattentive, DSM-IV-Hyperactive-Impulsive).

Kaner et al (Kaner, Büyüköztürk, İşeri, Ak, & Özaydın, 2006a) investigated psychometric properties of CPRS-R/L for Turkish parents. 5355 children and adolescents aged 3-17 years old were enrolled in this study. Confirmatory factor analysis-CFA suggested that CPRS-R/L form's structure derived from Turkish children were fit to the original structure of the scale. Correlations between CPRS-R/L with CPRS-48 and RPBC were demostrated generally at the moderate level. Cronbach's alpha coefficient were 0.85- 0.55. Test-retest reliability values were in the range of 0.73- 0.35.

2.1.1.2. Conners' Teacher Rating Scale- Revised/Long-CTRS-R/L (Connners, 1997). With the exception of the Psychosomatic subscale, the teacher and the parent forms contain the same subscales (Conners, 1997). CTRS-R/L has 59 items. Kaner et all (2006b) were conducted CFA on the data obtained by administering the CRTRS-L on teachers of 5355 children of the 3-17 age group in Turkey. CFA showed that the CRTRS-L's structure obtained from the Turkish children was consistent with an original scale excluding one item (Item 42) in a different subscale. Also, ADHD Index separated two subscales which named ADHD Index-Inattentive and ADHD Index-Hyperactive. It was found that the relationship between the CTRS-R/L and CRTRS-28 and the RPBC were of medium significance in general. Cronbach alpha coefficients were ranged 0.80-0.94. Further, a test-retest reliability coefficient was analysed (0.62-0.99).

2.1.1.3. Conners-Wells Adolescent Self-Report Scale-Long-CASS-L (Connners, 1997). CASS-L contains 87 items and 10 subscales (Family Problems, Emotional Problems, Conduct Problems, Cognitive Problems/Inattentiveness, Anger Control, Hyperactivity, ADHD Index, DSM-IV Symptom Scales (DSM-IV-Inattentive, DSM-IV-Hyperactive-Impulsive).

Adaptation study of CASS-L to Turkish adolescents were conducted by Kaner et all (Kaner et all., 2006c). CFA suggested that CASS-L's structure derived from Turkish adolescents were fit to the original structure of the scale. The Cronbach alphas of the CASS-L (0.76-0.87) and test-retest reliability was also investigated (0.64-0.81).

Adolescents, parents, and teachers are asked to rate frequency of a spesific behaviour of an adolescent on a 4 point Likert-type scale, ranging from 0=not true at all (never, seldom), 1=just a little true (occasionally), 2=pretty

much true (often, quite a bit), and 3=very much true (very often, very frequent). A higher score corresponds to a greater presence of symptomatic behaviours.

3. Results

The present study assessed concordance of self-and informant ratings of youth's ADHD symptoms in a national sample of Turkish adolescents. Pearson correlations of parents, teachers' and youths's reports of the adolescents's ADHD problems are presented in Table 1.

Table 1. Informants agreement on CPRS-R/L, CTRS-R/L and CASS-L

Parent-Teacher (n=937)							
Parent	Teacher						
	CP-I	H	ADHD-I	ADHD-H	DSM-IV/I	DSM-IV/HI	DSM-IV/T
CP-I	.24**	.12**	.20**	.10**	.21**	.11**	.18**
H	.04	.10**	.05**	.08**	.03	.10**	.07*
ADHD	.14**	.11**	.14**	.09**	.13**	.10**	.13**
DSM-IV/I	.13**	.08*	.11**	.07**	.11**	.08*	.11**
DSM-IV/HI	.10**	.14**	.06**	.14**	.04	.16**	.11**
DSM-IV/T	.05	.12**	.10**	.12**	.08*	.14**	.12**

Parent-Adolescent (n=937)						
Parent (n=937)	Adolescent					
	CP-I	H	ADHD	DSM-IV/I	DSM-IV/HI	DSM-IV/T
CP-I	.58**	.26**	.52**	.55**	.35**	.52**
H	.38**	.46**	.42**	.37**	.55**	.54**
ADHD	.54**	.41**	.55**	.54**	.50**	.61**
DSM-IV/I	.52**	.27**	.47**	.54**	.38**	.54**
DSM-IV/HI	.33**	.52**	.38**	.34**	.62**	.57**
DSM-IV/T	.48**	.46**	.48**	.50**	.58**	.63**

Teacher-Adolescent (n=937)						
Teacher	Adolscent					
	CP-I	H	ADHD	DSM-IV/I	DSM-IV/HI	DSM-IV/T
CP-I	.21**	.05	.18**	.13**	.06	.11**
H	.07*	.10**	.08*	.08*	.14**	.13**
ADHD-I	.16**	.07*	.16**	.14**	.05	.11**
ADHD-H	.06	.11**	.06	.06*	.13**	.11**

DSM-IV/I	.17**	.04	.15**	.11**	.05	.12**
DSM-IV/HI	.06	.11**	.07*	.06	.16**	.12**
DSM-IV/T	.13**	.09**	.13**	.10**	.11**	.11**

*P<0.05; **p<0.001

As shown Table 1, parent-teacher agreement were between 0.03-0.24. The correlations for teacher-adolescent ratings were 0.05-0.21. These results show that correlations between parent and teacher ratings and self and teacher ratings were low. On the other hand, all parent-self correlation coefficients (0.26-0.63) were significant but low to moderate (for DSM-Total, r=0.63; for DSM-Hyperactive-Impulsive, r=0.62; for Cognitive Problems-Inattentive, r=0.58; for ADHD Index, r=0.55; for DSM-Inattentive, r=0.54).

For both parent-teacher and teacher-adolescent ratings in inattentiveness scales (respectively r=0.11-0.24; r=0.11-0.21), the correlations were found to be a little bit higher than in hyperactivity scales (respectively r=0.08-0.16; r=0.10-0.16). Correlations were between 0.46-0.62 in hyperactivity and 0.52-0.58 in inattentiveness scales for parent-youth ratings.

4. Discussion

The present study evaluates agreements between parent, teacher, and adolescent ratings in terms of ADHD symptoms via Conners rating scales.

The results showed that the highest consistency were between parent and youth assessments. The other two cross-informants consistencies' were quite low. Although Conners (1997) found more higher correlations between raters than ours, the current findings are consistent with previous discrepancy research showing that parent, teacher and adolescent have different perceptions about ADHD symptoms. Previous research examining informant consistency of childhood hyperactivity/inattention has been largely supported our findings. The present and the past research have shown low to moderate levels of agreement across different informants of psychopathology including ADHD (Achenbach et all, 1987; Conners, 1997; Deb, Dhaliwal, & Roy, 2008; De Los Reyes, & Kazdin, 2005; Gau, Soong, Chiu, & Tsai, 2006; Gomez, 2007; Kolko, & Kazdin, 1993; McConaughy,1993; Renk, 2005; Smith, 2007; Sullivan & Riccio, 2007). In the well known study of Achenbach et all (1987), the authors conducted a metaanalysis to examine the relationship between parents, teachers, and the children themselves. This analysis revealed low to moderate correlations between raters. Low correlations between multiple informants may be considered as lack of reliability in informant' reports. It must be assumed that different informants present different contributions to the diagnosis information, rather than assuming that one of these informants may be inaccurate or invalid (Achenbach et all., 1987). It is also indicate that these informants could not substitute for one another (Achenbach et all., 1987). Every informants present value informations with different perspective. Thus, instead of considering the accuracy of any one informant, researchers and clinicians must obtain information on children's problem behaviors from multiple perspectives and investigate the methods for combining information from multiple informants.

Inconsistency between informants may be due to that behaviors of concern may be related to a spesific setting or context. In other words, most pairs of informants have different roles and saw the children under different conditions such as home, school, and clinical settings, and they interact differently with the child (Achenbach et all., 1987), and also, children and adolescents behave differently at school and at home.

The lowest agreement was on the adolescent's relationships with the teacher. On the other hand, parent-adolescent agreement was higher than teacher-adolescent agreement. These findings indicate that the adolescents agree with their parents more often than they agree with teachers. It may be that student's relationship with teachers in high school are changing with each teacher. Also, it seems that parents share more common perspective with their children in terms of ADHD symptoms than teachers. Consistently with our findings, Parker, Bond, Recker & Wood (2005) report moderate agreement between adolescent and parent ratings. In other two research, Achenbach, Dümenci & Rescoria (2002) and Becker et all (2004) reported identical findings with ours'.

Also it was found that the correlations parent-teacher and teacher-adolescent ratings in inattentiveness scales were to be a little bit higher than in hyperactivity scales. Our findins seems to support the notion and findings that hyperactivity symptoms appear to be typical of young children and decreases with age, whereas inattention is relatively pervasive developmental characteristic, appear to be more stable across various life context, being more characteristic of older children, and even in general population may not be change from childhood to adolescence (Antrop et all, 2002; Conners, 1997; Coutinho et all., 2008; Deng, Liu & Roosa, 2004; Dias et all., 2008; Gau et all., 2006; Glutting, Youngstrom & Watkins, 2005; Gomez, 2007; Kumar & Steer, 2003; Luk, Leung, & Lee, 1988; Pierrehumbert, Bader, Thevoz, Kinal & Halfon, 2006; Pineda et al., 2005; Ruchkin, Lorberg; Koposov, Schwab-Stone & Sukhodolsky, 2008; Van der Ooard et all, 2006; Waschbucch & Willoughby, 2008). However, few studies revealed contradictory results (Kaner, 2009; Mattison, Bagnato & Strickler, 1987; Re & Cornoldini, 2009; Zuker, Morris, Ingram, Morris, & Bakeman, 2002). For example, Gau et all (2006) reported that hyperactivity decreased over school grade levels for girls and boys according to parents' perspectives, but this was not obtained in teachers' reports; inconsistently from our finding teacher reported inattention and cognitive problems increased over school grade levels only for boy aged 6-16 years.

Overall, current findings supported the importance to take into account different informants judgements identifying ADHD symptoms in children and adolescents. However, there are several limitations of this study. The main weakness of this study is the use of measures using different questions for different informants. When such measures are employed, discrepancy between parent, teacher and child reports may simply be the result of they are answering similar but different items (Carlston & Ogleb, 2009). Future research regarding informant rating scales must take into consideration item level agreement. Research about item-level agreement between different informants can guide researchers and clinicians in evaluating and integrating information (Cai, Kaiser, & Hancock, 2004) from these informants for preventing spesific problem behaviors in different settings such as home and schools. But this suggestion seems like not to explain exactly the differences of raters' perceptions in the current study. There is contradictory finding to this suggestion in our study. In the DSM-IV/Inattentive and DSM-IV/Hiperactive-Impulsive scales all item are identical in parent and teacher forms except one item in both subscales. However, it was found that low correlations in parent-teacher ratings for both subscales. Nevertheless, it should be used same items content comparing informants judgement.

Although there are several advantages of using rating scales which psychometric properties empirically based, future research must use other research methodhology such as direct behavioral observations, and parent and teacher interviews besides completion of rating scales of different informants. Multi-dimensional assessment could lead to more accurate identification of children with ADHD.

Agreement between informants' ratings was greater for younger children than adolescents (Achenbach et al., 1987; Tang, 2002). Thus, future research will necessarily adress informant agreements using sample with children of different age.

Informant agreement in current study may be influenced by a number of factors. Informant discrepancies may relate to characteristics of parents, teachers, and the youths. Future research will necessarily need to evaluate if informants and child agreement is influenced by child (such as age, gender, type of problem) and informant characteristics (i.e., mental health).

References

Achenbach, T. M., Dumenci, L. & Rescria, L., A. (2002). Ten-year comparison of problems and competencies for national samples of youth: Self, parent, and teacher reports. *Journal of Emotional and Behavioral Disorders,* 10 (4), 194-203.

Achenbach, T. M., McConaughy, S. H. & Howell, C. T. (1987). Child/adolescent behavioral and emotional problems: Implications of cross-informant correlations for situational specificy. *Psychological Bulletin,* 101, 212-232.

Antrop, I., Roeyers, H., Oosterlaan, J. & Van Oost, P. (2002). Agreement between parent and teacher ratings of disruptive behavior disorders in children with clinically diagnosed ADHD. *Journal of Psychopathology and Behavioral Assessment,* 24 (1), 67-73.

Becker, A., Hagenberg, N., Roessner, V., Woerner, W. & Rothenberger, A. (2004). Evaluation of the self-reported SDQ in a clinical setting: Do self-report tell us more than ratings by adult informants? *Europen Child &Adolescent Psychiatry,* 13 (2), 17-24.

Bussing, R., Fernandez, M., Harwood, M., Hou, W. Wilson-Garvan, C. & Swanson, J. M. (2008). Parent and teacher SNAP-IV ratings of attention deficit/hyperactivity disorder symptoms. *Assessment,* 20 (10), 1-12.

Cai, X., Kaiser, A. P. & Hancock, T. B. (2004). Parent and teacher agreement on Child Behavior Checklist items in a sample of preschoolers from lower-income and predominantly African American families. Journal of Clinical Child and Adolescent Psychology, 33 (2), 303-312.

Carlston, D. L. & Ogles, B. M. (2009). Age, gender, and etnicity effects on parent-child discrepancy using identical item measures. *Journal of Child and Family Studies,* 18, 125-135.

Cohen, M. L., Kelly, P.C. & Atkinson, A. W. (1989). Parent, teacher, child. *Attention Deficit Disorder,* 143, 1229-1233.

Conners, C. K. (1997). *Conners' Rating Scales-Revised. Instruments for use with children and adolescents*. Toronto: MHS.

Coutinho, G., Mttos, P., Schmiz, M., Fortes, D., & Borges, M, (2009). Agreement between parents' and teachers' report on ADHD symptomatology: Findings from a Brazilian clinical sample. Review Psiq Clinic, 36 (3), 101-104.

Deb, S., Dhaliwal, A. J., & Roy, M. (2008). The usefulness of Conners' Rating Scales-Revised in screening fo attention deficit hyperactivity disorder in children with intellectual disabilities and borderline intelligence. *Journal of Intellectial Disability Research,* 52 (11), 950-965.

De Los Reyes, A. & Kazdin, A. E. (2005). Informant discrepancies in the assessment of childhood psychopathology: A critical review, theoretical framework, and recommendations for further study. *Psychological Bulletin,* 131 (4), 483-509.

Deng, S., Liu, X. & Roosa, M. K. (2004). Agreement between parent and teacher reports on behavioral problems among Chinese children. *Developmental and Behavioral Pediatrics,* 25 (6), 407-413.

Dias, G., Mattos, P., Coutinho, G., Segenreich, D., Saboya, E., & Ayrao, V. (2009). Agreement rates between parent and self-report on past ADHD symptoms in an adulth clinical sample. *Journal of Attention Disorders,* 12 (1), 70-75.

Gau, S., Soong, W. T., Chiu, Y. N., Tsai, W. C. (2006). Psychometric properties of the Chineese version of the Conners' parent and teacher rating scales-revised: Short form. *Journal of Attention Disorders,* 9 (4), 648-659.

Glutting, J.J., Yougstrom, E. A., & Watkins, M. V. (2005). ADHD and college students: Exploratory and confirmatory factor structure with student and parent data. *Psychological Assessment,* 17 (1), 44-55.

Gomez, R. (2007). Australian parent and teacher ratings of DSM-IV ADHD symptoms: Differential symptoms functioning and parent-teacher agreement and differences. *Journal of Attention Disorders,*119 (1), 17-27.

Hale, J. B., How, S. K., Dewitt, M. B. & Coury, D. L. (2001). Discriminant calidity of the Conners' Scales for ADHD subtypes. *Current Psychology: Development, Learning and Personality,* 20 (3), 231-249.

Kaner, S. (2009). Consistency of parents' and teachers' assessment of emotional and behavioral problems in children with mentally retarded. *Ankara University Journal of Educational Sciences,* 42 (2), 239-263.

Kaner, S. , Büyüköztürk, Ş., İşeri, E., Ak, A. & Özaydın, L. (2006a). Adaptation study of Revised Conners' Parent Rating Scale-Long Form to Turkish population. *16 th. Congress of National Children' and Adolescent' Mental Health and Diseases,* April 20-23, 2006. Antalya, Turkey.

Kaner, S. , Büyüköztürk, Ş., İşeri, E., Ak, A. & Özaydın, L. (2006b). The Validity and reliability study of the Turkish Version of Conners' Teacher Rating Scale- Revised (CTRS-R). *WPA International Congress,* July 12-16, 2006. İstanbul, Turkey.

Kaner, S. , Büyüköztürk, Ş., İşeri, E., Ak, A. & Özaydın, L.(2006c). Adaptation study of Conners-Wells Self-Report Rating Scale-Long Form to Turkish population. *14th. National Psychology Congress,* December 6-8, 2006. Ankara, Turkey.

Kumar, G. & Steer, R. A. (2003) Factor validity of the Conners' parent Rating Scale-Revised: Short form with psychiatric outpatient. *Journal of Personality Assessment 80* (3): 252-259.

Kumar, G. & Steer, R. A. (2003) Factor validity of the Conners' parent Rating Scale-Revised: Short form with psychiatric outpatient. *Journal of Personality Assessment* 80 (3): 252-259.

Kolko, D. J. & Kazdin, A. E. (1993). Emotional/behavioral problems in clinical and nonclinical children: Correspondence among child, parent, and teacher reports. *Journal of Child Psychology and Psychiatry,* 34 (6), 991-1006.

Loeber, R., Green, S. M. & Lahey, B. B. (1990). Mental health proffessionals' perception of the utility of children, mothers, and teachers as informants on childhood psychopathology. *Journal of Clinical Child Psychopathology,* 19 (2), 136-143.

Luk, S. L., Leung, P. W. L., & Lee, P. L. M. (1988). Conners' Teacher Rating Scale in Chinese children in Hong Kong. J Child Psychol Psychiatry 29 (2): 165-174.

Mattison, R. E. , Bagnato, S. J. & Strickler, E. (1987). Diagnostic importance of combined parent and teacher ratings on the Revised Behavior Problem Checklist. *Journal of Abnormal Child Psychology,* 15 (4), 617-628.

McConaughy, S. H. (1993). Advances in empirically based assessement of children's behavioral and emotional problems. *School Psychology Review,* 22 (2), 285-308.

Mitsis, E. M., Mckay, K. E., Schulz, K. P., Newcorn, J. H., & Halperin, J. M.. (2000).Parent-teacher concordance for DSM-IV attention-deficit/hyperactivity disorder in a clinicreferred sample. *Journal of American Academy Child and Adolescent Psychiatry,* 39 (3), 308-13.

Pierrehumbert, B., Bader, M., Thevoz, S., Kinal, A.,& Halfon, D. (2006). Hyperactivity and attention problems in a Swiss sample of school-aged children. *Journal of Attention Disorders* 10 (1), 65-76.

Pineda, D. A., Aguirre, D. C., Garcia, M. A., Lopera, F. J., Palacio, L. G., Kamphaus, R. W. (2005). Validation of two rating scales for attention-deficit hyperactivity disorder diagnosis in Colombian children. *Pediatric Neurology,* 33 (1), 15-25.

Re, A. M. & Cornoldi , C. (2009). Two new rating scales for assessment of ADHD symptoms in Italian preschool children. *Journal of Attention Disorders,* 12 (6), 532-539.

Renk, K. (2005). Cross-informant ratings of behavior of children and adolescents: The "gold stardart". *Journal of Child and Family Studies,* 14 (4), 457-468.

Ruchkin, V., Lorberg, B., Koposov, R., Schwab-Stone, M., & Sukhodolsy, D. G. (2008). *Journal of Attention Disorders,* 12 (1), 54-63.

Serra-Pinheiro MA, Mattos P, Regalla MA. (2008). Inattention, hyperactivity, and oppositional-defiant symptoms in Brazilian adolescents: gender prevalence and agreement between teachers and parents in a non-English speaking population. *Journal of Attention Disorders,* 12 (2), 135-40.

Smith, S. R. (2007). Making sense of multiple informants in child and adoliscent psychopathology. *Journal of Psychoeducational Assessment,* 25 (2), 139-149.

Smith, B. H., Pelham, W. E., Gnagy, E., Molina, B. & Evans, S. (2000). The reliability, validity, and unique contributions of self-report by adolescents receiving treatment for attention-deficit/hyperavtivity disorder. *Journal of Consulting and Clinical Psychology,* 68 (3), 489-499.

Sullivan, J. R., & Riccio, C. A. (2007). Diagnostic group differences in parent and teacher ratings of the BRIEF and Conners' scales. *Journal of Attention Disorders,* 11 (3), 398-406. 70-75.

Tang, J. (2002). Predicting factors of parent and child agreement on ratings of child emotional and behavioral problems. Perspectives in Psychology, Spring, 12-19.

Van derOord, S., Prins, P.J.M., Oosterlaan, J., & Emmelkamp, P.M.G. (2006). The association between parenting stress, depressed mood and informant agreement in ADHD and ODD. *Behaviour Research & Therapy,* 44*,* 1585-1595.

Verhultz, F. C., Dekker, M. C. & van der Ende, J. (1997). Parent, teacher, and self-reports as predictors of signs of disturbance in adolescents: Whose information carries the most weight? *Acta Psychiatry Scandinavian,* 96, 75-81.

Waschbusch D. A. & Willoughby, M. T. (2008). Parent and teacher ratings on the Iowa Connners Scale. *Journal of Psychopathology and Behavior Assessment,* 30, 180-192. .

Zucker, M., Morris, M. K., Ingram, S. M., Morris, R. D. & Bakeman, R. (2002). Concordance of self-and-ınformant ratings of adulths' current and childhood attention-deficit/hyperactivity disorder symptoms. *Psychological Assessment,* 14 (4), 379-389.